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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,503	07/09/2001	Rodney Schmidt	TT4055	4904

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WILLIAMS, MORGAN & AMERSON, P.C.
10333 RICHMOND, SUITE 1100
HOUSTON, TX 77042

EXAMINER	
CASIANO, ANGEL L	

ART UNIT	PAPER NUMBER
2182	6

DATE MAILED: 10/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PRE

Office Action Summary	Application No.	Applicant(s)	
	09/901,503	SCHMIDT ET AL.	
	Examiner	Art Unit	
	Angel L. Casiano	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 July 2001* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☒ Claim(s) *7* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 July 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

1. The present Office Action is in response to application filed 09 July 2001.

2. Claims 1-22 are pending in the application.

Information Disclosure Statement

3. The information disclosure statement (IDS) submitted on 04 November 2002 was filed after the mailing date of the application on 09 July 2001. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "175" has been used to designate both "Storage device" and "ACR card" (see Figure 2). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "storage device 195" as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

6. The disclosure is objected to because of the following informalities:

- Page 15, second paragraph; should read "privileged modem driver 190"

Appropriate correction is required.

Claim Objections

7. Claim 7 is objected to because of the following informalities:

- Claim 7 should read: "the privileged code, when executed, is adapted to *receive* the request...".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 8-10 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Koenck et al. [US 6,104,705].

Regarding claim 1, Koenck et al. teaches a communication system (see col. 2, lines 17-19; col. 9, lines 45-47; col. 12, lines 24-30). The disclosure by Koenck et al. includes physical layer

hardware (see Fig. 1B, "259") adapted to communicate (see "wireless", col. 10, lines 28-29) data over a communications channel (see col. 10, lines 24-25) in accordance to control codes (see "control signals", col. 8, line 51; col. 9, lines 53-54). The physical layer hardware is disclosed by the prior art as being a modem (see Fig. 1B, "259"). By definition, a modem is adapted to convert digital pulses to analog signals and vice versa (*mo*dulate-*dem*odulate). Accordingly, the cited physical layer in the reference is adapted to demodulate an incoming analog signal and generate a digital receive signal and to modulate a digital transmit signal to generate an analog transmit signal. Koenck et al. also includes a processing unit (see "microprocessor", Abstract; Fig. 1A) adapted to execute a driver (inherent, see col. 9, lines 5-6, 16-19) for interfacing with the physical layer hardware. The cited driver (see "program") includes instructions for implementing a protocol layer (see Figs. 1B, 1C; col. 9, line 57) based on control codes (see Abstract).

In consideration of claim 8, Koenck et al. teaches control instructions including frequency assignment (inherent, see col. 8, lines 30-35; col. 9, lines 27-31) and time slot assignment (inherent, see col. 4, lines 64-67; col. 5, lines 1-13).

As per claim 9, Koenck et al. teaches a processing unit as being a microprocessor (see Abstract).

As for claim 10, Koenck et al. teaches a system (see Abstract) as well as a processing complex adapted to execute a code. A bus is coupled to the processor complex (see Figs. 1 (A-C)). The cited prior art includes an expansion card (see Fig. 2; col. 11, lines 49-61) coupled to the bus.

The expansion card includes the physical layer hardware (see "modem", col. 4, lines 10-12; col. 33, lines 3-10).

Regarding claim 21, Koenck et al. teaches a communication system (see col. 2, lines 17-19; col. 9, lines 45-47; col. 12, lines 24-30). The cited art teaches physical layer hardware as being a modem (see Fig. 1B, "259"). By definition, a modem is adapted to convert digital pulses to analog signals and vice versa (*mo*dulate-*dem*odulate). Accordingly, the cited physical layer in the reference is adapted to demodulate an incoming analog signal and generate a digital receive signal and to modulate a digital transmit signal to generate an analog transmit signal. Koenck et al. also includes a processing unit (see "microprocessor", Abstract; Fig. 1A) adapted to execute a driver (inherent, see col. 9, lines 5-6, 16-19) for interfacing with the physical layer hardware. The cited driver (see "program") includes instructions for implementing a protocol layer (see Figs. 1B, 1C; col. 9, line 57) based on control codes (see Abstract).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claims 2-7, 11-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koenck et al. [US 6,014,705] in view of Terrell et al. [US 2002/0124108 A1].

As for claim 2, Koenck et al. teaches a memory (see col. 8, line 67; col. 9, line 6) to store a code. The cited code, allows the processing unit to interact with other devices (see col. 9, lines 1-2). In addition, the cited memory stores code that defines an instruction for configuration (see col. 16, lines 46-48). However, the cited art does not explicitly cite configuration of the physical layer hardware as a privileged instruction or receiving a request to execute the privileged instruction from a calling program. Koenck et al. does not expressly teach determining if the calling program has authority to execute the privileged instruction or further executing the instruction in response to such determination. Nonetheless, the cited reference teaches instructions with different levels of privilege (see "priority", col. 14, lines 35-44, 46-47). These instructions include altering a program (code), which "affects future operation of the unit" (see col. 14, lines 47-48). Therefore, the cited reference suggests prioritizing instructions that affect configuration of the physical layer. In addition, Koenck et al. teaches privilege criteria for executing an instruction (see col. 27, lines 37-41). Terrell et al. teaches a secure multiprotocol interface (see Title). As part of the disclosure, Terrell et al. teaches security features between programs (see page 4, [0031]), including access privileges as well as identification for allowing the execution of the privileged instructions in response to proper authorization. The disclosure presented by Koenck et al. is directed to wireless communication networks having portable terminals and methods for accessing a Radio Frequency network (see col. 2, lines 15-21). Therefore, one of ordinary skill in the art would have been motivated to combine the cited references (Koenck et

al, and Terrell et al.) in order to obtain a wireless network and method of access having a secure multiprotocol interface. Furthermore, the combination of references would provide security features (see page 4, [0031]; Terrell et al.) such as an access table, protection mode and process ID. These added security features would provide a communication system capable of implementing access privileges.

As per claim 3, Koenck et al. teaches a processing unit (see "microprocessor", Abstract; Fig. 1A) adapted to execute a driver (inherent, see col. 9, lines 5-6). The cited driver (see "program") includes instructions for implementing a protocol layer (see Figs. 1B, 1C; col. 9, line 57) based on control codes (see Abstract). The disclosure also teaches a "calling program" (see col. 14, lines 46-48). Nonetheless, as stated above, Koenck et al. does not explicitly cite configuration of physical layer hardware as a privileged instruction or receiving a request to execute the privileged instruction from a calling program. Terrell et al. teaches security features between programs (see page 4, [0034]), including access privileges as well as identification for allowing the execution of the privileged instructions in response to proper authorization. One of ordinary skill in the art would have been motivated to combine the cited references (Koenck et al, and Terrell et al.) in order to obtain a wireless network and method of access having a secure multiprotocol interface. The combination of reference would provide security features (see page 4, [0034]; Terrell et al.) such as a process ID. This "process ID" would have provided identification for the calling programs attempting to execute a privileged instruction.

As for claim 4, Koenck et al. teaches a memory (see col. 8, line 67; col. 9, line 6) to store a code. In addition, the cited memory stores code that defines an instruction for configuration (see col. 16, lines 46-48). However, the cited art does not explicitly cite a privilege code adapted to define a memory region for the privilege instruction. Furthermore, Koenck et al. does not mention "first" and "second" registers. Regarding this aspect of the claim, Terrell et al. teaches registers (see page 4, [0029], [0031]; page 5, [0036]) that define memory in a computer system. Terrell et al. also teaches security features between programs, including access privileges as well as identification for allowing the execution of the privileged instructions in response to proper authorization. One of ordinary skill in the art would have been motivated to combine the cited references in order to obtain identification for the programs attempting to execute a privileged instruction. Terrell et al. teaches registers for memory management which also affect the contents of the "access table" (see page 5, [0036]). It should be noted that the "access table" is an indicator of access privileges.

As per claim 5, Koenck et al. does not teach a "privilege code" that when executed, is adapted to determine if the calling program has authority to execute the privileged instruction. Nonetheless, Terrell et al. teaches security features between programs (see page 4, [0034]), including access privileges as well as identification for allowing the execution of the privileged instructions in response to proper authorization. Therefore, Terrell et al. teaches verifying the identity of the calling program (see "process ID"). One of ordinary skill in the art would have been motivated to combine the cited references (Koenck et al, and Terrell et al.) in order to obtain a wireless network and method of access having a secure multiprotocol interface. The combination of

reference would have provided additional security features (see page 4, [0031]; Terrell et al.) such as an access table and protection mode.

As per claim 6, Koenck et al. does not teach a "privilege code" that when executed, is adapted to determine if the calling program has authority to execute the privileged instruction. Koenck et al. does not teach a step for "authenticating" a "calling program". By definition, as it is known in the art, "authentication" refers to verifying the identity or integrity of a user that is to access a computer system. Terrell et al. teaches verifying the identity of a calling program (see "process ID"). In accordance, it would have been obvious to one of ordinary skill in the art at the time the invention was made that the cited reference included authentication of the calling program. Furthermore, one of ordinary skill in the art would have been motivated to combine the cited disclosures in order to obtain additional security features for a wireless network.

As for claim 7, Koenck et al. does not teach a "privilege code" that when executed, is adapted to receive the request to execute the privileged instruction by receiving an exception generated by the processing unit in response to the calling program attempting to execute the privileged instructions. Regarding this aspect of the claim, Terrell et al. teaches security features between programs (see page 4, [0031]), including access privileges as well as identification for allowing the execution of the privileged instructions in response to proper authorization. Although no exception is cited by the prior art, Terrell et al. does teach additional security features, such as access table and protected modes. As part of these security features, one of ordinary skill in the

art would have been motivated to include an exception in order to allow a specific program to execute a privileged (reserved) instruction.

Regarding claim 11, Koenck et al. teaches a communication system (see col. 2, lines 17-19; col. 9, lines 45-47; col. 12, lines 24-30). The disclosure by Koenck et al. includes physical layer hardware (see Fig. 1B, "259") adapted to communicate (see "wireless", col. 10, lines 28-29) data over a communications channel (see col. 10, lines 24-25) in accordance to control codes (see "control signals", col. 8, line 51; col. 9, lines 53-54). The physical layer hardware is disclosed by the prior art as being a modem (see Fig. 1B, "259"). By definition, a modem is adapted to convert digital pulses to analog signals and vice versa (*mo*dulate-*dem*odulate). Accordingly, the cited physical layer in the reference is adapted to demodulate an incoming analog signal and generate a digital receive signal and to modulate a digital transmit signal to generate an analog transmit signal. Koenck et al. also includes a processing unit (see "microprocessor", Abstract; Fig. 1A) adapted to execute a driver (inherent, see col. 9, lines 5-6, 16-19) for interfacing with the physical layer hardware. The cited driver (see "program") includes instructions for implementing a protocol layer (see Figs. 1B, 1C; col. 9, line 57) based on control codes (see Abstract). Koenck et al. teaches a memory (see col. 8, line 67; col. 9, line 6) to store a code. The cited memory stores code that defines an instruction for configuration (see col. 16, lines 46-48). However, the cited art does not explicitly cite configuration of the physical layer hardware as a privileged instruction or receiving a request to execute the privileged instruction from a calling program. Koenck et al. does not expressly teach determining if the calling program has authority to execute the privileged instruction or further executing the instruction in response to

such determination. The cited reference does teach instructions with different levels of privilege (see "priority", col. 14, lines 35-44, 46-47). These instructions include altering a program (code), which "affects future operation of the unit" (see col. 14, lines 47-48). Therefore, the cited reference suggests prioritizing instructions that affect configuration of the physical layer. In addition, Koenck et al. teaches privilege criteria for executing an instruction (see col. 27, lines 37-41). Terrell et al. teaches a secure multiprotocol interface (see Title). As part of the disclosure, Terrell et al. teaches security features between programs (see page 4, [0031]), including access privileges as well as identification for allowing the execution of the privileged instructions in response to proper authorization. The disclosure presented by Koenck et al. is directed to wireless communication networks having portable terminals and methods for accessing a Radio Frequency network (see col. 2, lines 15-21). Therefore, one of ordinary skill in the art would have been motivated to combine the cited references (Koenck et al, and Terrell et al.) in order to obtain a wireless network and method of access having a secure multiprotocol interface. Furthermore, the combination of reference would provide security features (see page 4, [0031]; Terrell et al.) such as an access table, protection mode and process ID. These added security features would provide a communication system capable of implementing access privileges.

Regarding claim 12, this constitutes the method for configuring a transceiver in a communication system. As stated in previously in the present Office Action, the combination of references (Koenck et al. in view of Terrell et al.; see claims 1-2) teaches the system for the method in

claim 12. Therefore, the combination of references also teaches the method oriented to the transceiver in the cited system. Claim 12 is rejected under the same rationale.

As for claims 13-19, these are oriented to the method for configuring a transceiver in a communication system. The combination of references, as exposed previously (see rejection for claims 2, 3, 5-8), teaches the cited system and therefore the claimed method. Accordingly, the present claims are rejected under the same rationale.

Regarding claim 20, this is oriented to the method for configuring a transceiver in a communication system. As stated in previously, the combination of references (Koenck et al. in view of Terrell et al.; see claims 1-2) teaches the system for the method in this claim. Therefore, the combination of disclosures also teaches the method oriented to the transceiver in the cited system. Claim 20 is rejected under the same rationale.

As for claim 22, the cited art does not explicitly cite configuration of the physical layer hardware as a privileged instruction or receiving a request to execute the privileged instruction from a calling program. Koenck et al. does not expressly teach determining if the calling program has authority to execute the privileged instruction or further executing the instruction in response to such determination. Nonetheless, the cited reference teaches instructions with different levels of privilege (see "priority", col. 14, lines 35-44, 46-47). These instructions include altering a program (code), which "affects future operation of the unit" (see col. 14, lines 47-48). Therefore, the cited reference suggests prioritizing instructions that affect configuration of the

physical layer. In addition, Koenck et al. teaches privilege criteria for executing an instruction (see col. 27, lines 37-41). Terrell et al. teaches a secure multiprotocol interface (see Title). As part of the disclosure, Terrell et al. teaches security features between programs (see page 4, [0031]), including access privileges as well as identification for allowing the execution of the privileged instructions in response to proper authorization. The disclosure by Koenck et al. is directed to wireless communication networks having portable terminals and methods for accessing a Radio Frequency network (see col. 2, lines 15-21). Therefore, one of ordinary skill in the art would have been motivated to combine the cited references (Koenck et al, and Terrell et al.) in order to obtain a wireless network and method of access having a secure multiprotocol interface. Furthermore, the combination of references would provide security features (see page 4, [0031]; Terrell et al.) such as an access table, protection mode and process ID.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Terrell et al. [US 2002/0129272 A1] teaches serial virtual interface.
- Bonefas et al. [US 2002/0052968 A1] discloses messaging method and apparatus for routine messages in a client server environment over wireless and wireline networks.
- Inoue [US 6,529,969 B1] discloses reception method and apparatus for searching source devices.
- Kwan [US 6,504,838 B1] discloses voice and data exchange over a network.

- Bartholomew et al. [US 5,812,639] teaches message communication via common signaling channel.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angel L. Casiano whose telephone number is 703-305-8301. The examiner can normally be reached on 8:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 703-308-3301. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

alc
27 October 2003.

Rehana Perveen
Art Unit 2182